

# Ornithological Literature

Compiled by Mary Gustafson

**FIRE AND AVIAN ECOLOGY IN NORTH AMERICA.** By Victoria A. Saab and Hugh D. W. Powell (Eds.). *Studies in Avian Biology* no. 30, Cooper Ornithological Society, Camarillo, California. 2005: vii + 193 pp., 20 tables, 12 maps, 8 other figs. ISBN: 0943610648. \$18.00 (paper).—Formerly the purview of agency personnel and a handful of academics, over the last 30 years wildland fire management has entered the mainstream consciousness as a topic of debate and interest. This has been accompanied by a corresponding increase in attention paid by ornithologists to topics on fire ecology. This volume adds to the ever-growing list of fire-related papers and books, in this case providing a well edited and useful literature review specifically concerned with the effects of fire and fire exclusion on birds and their habitats.

This work is largely the result of a Partners In Flight symposium (held in 2002) that focused on patterns in human alteration of fire regimes and the consequences on bird populations and habitats. The introductory chapter provides an overall summary, highlights patterns, and suggests future research needs. While not a definitive treatment of all avian habitats found in North America, discussion of more than 40 North American ecosystems provides ample opportunity for the emergence of some broad patterns in fire regimes and avian responses. For example, habitats with naturally long fire-free periods have been less affected by fire exclusion practices because the period of fire exclusion is not markedly different from the normal fire-return interval.

Ten chapters summarize the current state of knowledge regarding fire and birds in the southwestern United States, California's oak woodlands, the maritime Pacific Northwest, sagebrush habitats, the Rocky Mountains, the boreal forests of Canada, central tallgrass prairies, eastern deciduous forests, grasslands and shrublands in New England, and southeastern pine savannas and native prairies. Many authors point out the lack of fire-effects data for particular habitats, and base projected fire ef-

fects on what is known about general avian habitat associations and responses to habitat change, or on the results of fire studies in similar habitats. For example, although fire is relatively common in California's oak woodlands, only one study has focused on the effects of an actual fire on birds in that system.

In total, the responses of more than 200 bird species to fire are discussed, with some predictable outcomes. For example, it is clear that frequent burning creates less favorable conditions for forest birds that nest low or on the ground, and that foliage gleaners prefer unburned habitats. The predictability of a given species' response, however, may not be straightforward: it may vary by region or with differences in fire size, intensity, frequency, and seasonal timing. In the case of Greater Sage-Grouse (*Centrocercus urophasianus*), an objective analysis suggests that prescribed fire—although often touted—may not have been overly successful as a management tool.

Although not part of the typical *Studies in Avian Biology* format, an index summarizing the effects of fire on different species would have been useful to workers concentrating on one or a few bird species. All 11 chapters are well-referenced, as evidenced by more than 900 sources listed in the Literature Cited section. Such a hefty Literature Cited section on the relatively narrow topic of fire and birds further increases this work's utility as a reference.

Several recurring themes appear in the chapters, including a call for additional research—especially experimental work on fire effects, which makes for good science and is entirely feasible in many prescribed fire scenarios. Response variables should focus on avian demographics, rather than on bird abundance, as is the case in many previous bird-fire studies. Well-stated was the premise that “understanding past fire regimes is of less practical value than investigating how present-day fires fit into the landscape and how they can be used to achieve management objectives.” Given the clear need for more fire on

the landscape, many of the authors suggest an approach to using prescribed fire that does not involve burning all the available acres in a short time period, but rather at a variety of temporal and spatial scales to produce a mosaic of different habitat and age classes. This well-reasoned approach to maintaining variation in the landscape might contrast with some practices, such as the large-scale application of frequent understory fires (as is typical in southwestern pine forests) in the Rocky Mountains, where a stand-replacing fire might be an objective.

Like most treatises on fire ecology, this one makes the obligatory call for less fire suppression with statements like "... it clearly seems reactive to continue battling naturally ignited fires burning within historic ranges of severity." Although understandable, such statements fail to appreciate the current impracticality of letting most wildfires burn, considering that modern wildlands comprise a complex mix of fire-adapted vegetation, small remnant patches of vulnerable special habitats (e.g., riparian and stands of old-growth forest), areas of increased flammability due to the presence of exotic plants and other buildups of fuels, and at-risk investments (e.g., conifer plantations and other anthropogenic improvements). Such a landscape, combined with dynamic weather patterns, a political atmosphere driven by special interest groups (e.g., proponents of scenic values for tourism), public health (e.g., smoke management) and safety concerns, and an increasingly litigious society make risk-averse decision makers unlikely to push too hard for expanded let-burn policies any time soon. While many authors call for expanded prescribed burning programs, large-scale application of fire as the primary fuels treatment could only be done with massive (and seemingly unlikely) increases in prescribed fire budgets. Thus, although fire is an appealing treatment for ecosystem restoration and management, it seems likely that mechanical thinning, livestock grazing, and other treatments intended as surrogates for fire will provide land managers with solutions over the short run, so researchers should probably look a bit harder at such options. However, since much of the discussion in this volume deals with responses of birds to habitat change, not necessarily their responses to fire, *per se*, the

information provided will facilitate planning for, and implementation of, a range of habitat treatments.

In light of the ongoing public debate regarding forest health and fire, especially welcome was a statement contrasting the effects of fuels treatments involving commercial harvest of large trees with those treatments intended to remove highly combustible, small-diameter fuels. We can only hope that forest managers also heed the cautions provided by many authors on post-fire salvage logging, which can easily reverse any benefits the burn may have provided to certain groups of birds, especially cavity-nesters.

*Fire and Avian Ecology in North America* will be an interesting and useful addition to the reference libraries of agency biologists, fire managers, ecologists, and others involved in fire and fuels issues. I recommend this book.—JOHN E. HUNTER, U.S. Fish and Wildlife Service, Arcata, California; e-mail: John.E.Hunter@fws.gov

**BIRDS OF WESTERN AFRICA.** By Nik Borrow and Ron Demey. Princeton University Press, Princeton, New Jersey. 2004: 512 pp., 147 color plates, 3,000+ color illustrations. ISBN: 0691123217. \$40.00 (paper).—*Birds of Western Africa*, by N. Borrow and R. Demey, was originally published in 2001 by Christopher Helm, London (hard cover), whereas this volume was released as part of the Princeton Field Guide series (soft cover). This magnificent field guide covers all 1,285 species of birds found within the present region of Western Africa, which the authors define as extending from Senegal and southern Mauritania east to Chad and the Central Africa Republic, and south to Congo, including Cape Verde and the Gulf of Guinea islands. A color-shaded map shows the location of each country.

The introduction provides information on changes to scientific and common names, including standardizations of English names, made since the 2001 publication. Name changes are those recommended by David and Gosselin (David, N. and M. Gosselin. 2002. Gender agreement of avian species names. *Bulletin of the British Ornithology Club* 122: 257–282) (David, N. and M. Gosselin. 2002.